

**METHODS AND SYSTEMS FOR MONITORING AND CONTROLLING
THE TEMPERATURE OF AN ORGAN DURING OPEN SURGERIES**

ABSTRACT OF THE INVENTION

[0047] Systems and methods are provided for monitoring and controlling the temperature of an organ during surgery, and are particularly useful for monitoring and controlling the temperature of the heart during surgery. The subject systems include a temperature sensor for application to the organ, reservoirs for containing temperature-controlled fluids to be delivered to the organ, a temperature regulator for regulating or maintaining the temperatures of such fluids, a pump for transferring the fluids from the reservoirs to the organ, a display for displaying certain system operating parameters and other information, a user interface module and a controller for controlling the functions of the system based on certain system operating parameters. The subject methods generally involve monitoring the temperature of an organ and, based on the organ's temperature, controlling the application of temperature-controlled fluids to the organ.